

2.4GHz Programmable Universal Counter

C3100



FEATURE

- Frequency measuring range : 0Hz to 120MHz (A input, B input) 100MHz to 2.4GHz (C input)
- Full autorange, 7 digits display with 0.01mHz resolution
- Programmable Record (MAX / MIN)
- Programmable Relative (REF / ERR)
- Programmable Compare (GO-NOGO)
- Trend Plot : REF is the centerline value on the trend graph. H/Div is the X axis (time) and V/Div is the Y axis (amplitude).
- Setup : Setting and functions are selected and stored in memory from the front panel. Eight setups are stored in memory.
- Equipment : Display information about your instrument including model number, serial number, calibration date, GPIB address and firmware revision.
- Remote Control : Built-in RS232C or optional GPIB interface
- 128 by 64 pixel super twisted LCD display
- Power Source : 85V to 270VAC ($\pm 10\%$, 48 to 66Hz)



Programmable Record



Programmable Relative



Programmable Compare



Trend Plot



Setup



Equipment

■ Technical Specification

CHA input Characteristics	Description						
	Frequency Range	0 to 120MHz(DC Coupled), 10Hz to 120MHz(AC coupled)					
	Sensitivity	25mV RMS (Sine Wave)					
	Impedance	1Mohm less with less than 35pF capacitance					
	Attenuator	x1, x10					
	Max. Input voltage	250V (DC or AC Peak)					
	Trigger level	±1.28V variable.					
	Trigger slope	Positive or Negative					
	Resolution	0.001Hz (G.T = 1 Sec. 200Hz)					
CHB input Characteristics	Same as CHA	Same as CHA					
CHC input Characteristics	Frequency Range	100MHz to 2.4GHz					
	Sensitivity	25mV RMS (Sine Wave)					
	Coupling	AC					
	Max. Input voltage	15Vrms (DC or AC peak)					
Measurement Function	(1)FRQ. A <ul style="list-style-type: none">▪ Range: 0 to 120MHz(DC Coupled), 10Hz to 120MHz(AC coupled)▪ Coupling: AC or DC▪ Slope: Positive or Negative▪ Trigger level: ±1.28V variable. (The trigger level is displayed as a scale -99 to +99 units) <ul style="list-style-type: none">▪ Low Pass filter: Approximately 100kHz▪ Attenuation: 0 and 20dB (x1 and x10)▪ Resolution: 0.00001Hz (Gate time = 1Sec, Input Frq = 200Hz)▪ Accuracy: ±Time Base Error ±1 Count						
	(2) FRQ.B: <ul style="list-style-type: none">▪ Same as FRQ. A						
	(3) FRQ.C: <ul style="list-style-type: none">▪ Range: 100MHz to 2.4GHz▪ Slope: Positive or Negative▪ Trigger level: Auto▪ Coupling: AC▪ Accuracy: ±Time Base Error ±1 Count						
	(4)Time Interval (A→B): <ul style="list-style-type: none">▪ Range: 0.5uS to 0.2S (5Hz to 2MHz)▪ Pulse width: 250nS minimum▪ Resolution: 0.1uS Max▪ Accuracy: Time Base Error ± CHA Trigger Error ± Magnification ±1 Count						
	(5) TOT. A (Totalize): <ul style="list-style-type: none">▪ Range: DC to 10MHz▪ Count Capacity: 0 to 9,999,999 (Over Flow)▪ Hold button controls the Start and Stop						
	(6) Ratio A/B <ul style="list-style-type: none">▪ Range: CHA input: 10MHz to120MHz, CHB input: 0.1MHz to 10MHz▪ Accuracy: CHB Trigger Error/(CHB Freq. x Gate Time) ±1 Count						
	(7) A-B Freq. Difference: <ul style="list-style-type: none">▪ Frequency Range: Same as CHA and CHB▪ Accuracy: Time Base Error ±1 Count						
	(8) DTY. A (Duty Cycle): <ul style="list-style-type: none">▪ Range: 1 to 100kHz▪ Duty cycles from 0.1% to 99% may be measured.						
	(8) RPM A measure: <ul style="list-style-type: none">▪ Maximum RPM: 600,000 RPM▪ Minimum pulse width: 250nS						
	GATE Times	<ul style="list-style-type: none">▪ 50mS, 100mS, 200mS, 300mS, 400mS, 500mS, 600mS, 700mS, 800mS, 900mS, 1S, 2S, 3S, 4S, 5S, 6S, 7S, 8S, 9S, 10S▪ Gating Accuracy Time base accuracy: 1ppm					
	Reference Time Base Oscillator	<ul style="list-style-type: none">▪ Standard Frequency: 10MHz, 4.194304MHz<ul style="list-style-type: none">▪ Frequency Stability: ±5.0ppm max.▪ Aging Rate: ±1.0ppm max./year▪ Temperature: -30°C to +60°C▪ Storage Temp. Range: -40°C to +85°C					
	General	Power Source	85V to 270Vac(±10%, 48 to 66Hz)				
Dimensions / Weight		235(W) x 296(D) x 85(H) mm / About 1.5 kg					
Standard Accessories		Users Manual, BNC cable (BNC & Clip), Line Cord, Spare fuse, RS232 Cable and S/W					
Optional Accessories		GP-IB (IEEE-488.2) Interface (Installed)					
Packing Details	Packing	Q'ty	Size (mm)	N.W. (kg)	G.W. (kg)	Remark	
	Inner	1	265(L) x 375(W) x 115(H)	-	2.2		
	Carton	4	550(L) x 405(w) x 270(H)	8.8	10		